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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.				
10/829,493	04/22/2004	William David Schaefer	37041-11449	6931				
2574 JENNER & BLOCK, LLP ONE IBM PLAZA CHICAGO, IL 60611	7590 05/30/2007		<table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">EDWARDS JR, TIMOTHY</td></tr></table>		EXAMINER		EDWARDS JR, TIMOTHY	
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			<table border="1"><tr><td>ART UNIT</td><td>PAPER NUMBER</td></tr><tr><td>2612</td><td></td></tr></table>		ART UNIT	PAPER NUMBER	2612	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/829,493	<b>Applicant(s)</b> SCHAEFER ET AL.	
	<b>Examiner</b> Timothy Edwards, Jr.	<b>Art Unit</b> 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on amendment filed March 12, 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: page 3 of applicant's specification numeral (18) is use to denote **keys**. Page 4 of applicant's specification numeral (18) is use to denote a **substrate**.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 2-9,13-28, are rejected under 35 U.S.C. 102(e) as being anticipated by Quinn et al '317.

Considering claim 2, Quinn discloses a data entry panel formed by, a) depositing a layer of decorative material onto at least a portion of a substrate (see col 5, lines 59-61); b) depositing a first layer of conductive material onto a portion of the substrate (see col 5, lines 44-50 and fig 4, item 20); c) depositing a second layer of conductive material being electrically coupled to a portion of the first layer of conductive material (see col 6, lines

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47-50, figs 5 and 6, items 23 and 27); d) second layer of conductive material being arranged in the form of a first electrical trace and a first bonding pad (see col 5, lines 32-50 and fig 6, items 27a-b and 26); e) electrically coupling a first electrical component to the first bonding pad (see col 5, lines 61-65 and col 6, lines 14-21).

Considering claim 3, Quinn discloses the limitation of this claim (see col 5, lines 50-61).

Considering claim 4, Quinn discloses the limitation of this claim (see col 5, line 60 to col 6, line 7).

Considering claims 5-8, Quinn discloses the limitation of these claims (see col 3, lines 39-45 and col 6, lines 22-31).

Considering claim 9, Quinn discloses the limitation of this claim (see col 6, lines 47-50).

Considering claims 13,18,23 the limitations of this claim is interpreted and rejected as stated in claim 2.

Considering claim 14, Quinn discloses the limitation of this claim (see col 5, lines 32-50, col 6, lines 14-21 and fig 6, items 27a-b and 26).

Considering claims 15,16,19,20,24-26 the limitations of these claims are interpreted and rejected as stated in claims 5 and 6.

Considering claim 17 the limitation of this claim is interpreted and rejected as stated in claim 9.

Considering claims 21,22,27,28 the limitations of these claims are interpreted and rejected as stated in claim 14.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10-12, are rejected under 35 U.S.C. 103(a) as being unpatentable over Quinn '317.

Considering claim 10, Examiner interprets the bonding pad to be connection means to the circuits used to process the activation signal that results from the pressing of a key. Quinn discloses in col 5, lines 32-50 and fig 6, items 27a-b and 26 conductive traces are printed on the inner surfaces of both layers of flexible sheet material, when a key is pressed it completes a circuit unique to that key which is decoded for digital

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transmission. One of ordinary skill in the art would readily recognize the Quinn system functionally addresses the limitation of a bonding pad because Quinn discloses means to transmit an activation signal to circuits used to process the activation signal that results from the pressing of a key. How the connections are made (i.e. a bonding pad) to connect the key activation signal to the decoding circuit is a choice of design.

Therefore, it would have been obvious to one of ordinary skill in the art to use any desired means to transmit a signal to indicate a key has been activated as taught by Quinn because Quinn is interested in recognizing which key has been activated.

Keyboard decoding circuitry is well known in the art (col 6, lines 14-21).

Considering claims 11-12 the limitations of these claims are interpreted and rejected as stated in claim 10.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Marsh '045, Fang '435, Doughty '177 and Mayer et al '734 disclose membrane key switch device.

Any inquiry concerning this communication should be directed to Examiner Timothy Edwards, Jr. at telephone number (571) 272-3067. The examiner can normally be reached on Monday-Thursday, 8:00 a.m.-6:00 p.m. The examiner cannot be reached on Fridays.

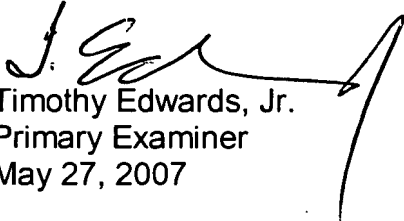
If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman, can be reached at (571) 272-3059.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-4700, Mon-Fri., 8:30 a.m.-5:00 p.m.

Any response to this action should be fax to:

(571) 273-8300 (for formal communications intended for entry).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov> or contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Timothy Edwards, Jr.  
Primary Examiner  
May 27, 2007